

# **CLAIM MANAGEMENT SYSTEM (CMS)**

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fulfillment of the requirements for the degree  
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by  
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## ABSTRAK

Claim Management System (CMS) merupakan suatu Sistem Pengurusan Tuntutan Kesihatan berautomasi yang komprehensif. Sistem ini mengautomasi fungsi yang dikendalikan oleh Universiti Utara Malaysia (UUM), klinik panel dan hospital panel. Sistem ini melaksanakan beberapa proses termasuklah proses tuntutan kesihatan melalui Internet, pengauditan urusan kewangan dan perubatan dalam segala aktiviti organisasi. Sistem ini dianggap sebagai satu penemuan baru dalam pentadbiran penjagaan kesihatan yang membolehkan rekod diperolehi dengan segera serta pembayaran tuntutan yang lebih tepat melalui Internet tanpa penglibatan pengguna. Selain itu, sistem ini juga mengekalkan tahap keselamatan yang tinggi. CMS menguruskan rekod tuntutan dengan lebih konsisten dan berkesan serta dapat mengurangkan cara penggunaan kertas. Seterusnya CMS telah memperkenalkan cara terkini mengurus aktiviti organisasi dalam persekitaran aplikasi berasaskan Web bagi menghasilkan pengurusan yang lebih produktif dan menjimatkan masa. Tambahan pula, CMS membolehkan Universiti Utara Malaysia (UUM), klinik panel dan hospital panel bekerja secara efisien dan efektif dengan menggunakan aplikasi berasaskan Web.

Kajian ini dijalankan untuk menghasilkan satu aplikasi berasaskan Web iaitu Sistem Pengurusan Tuntutan Kesihatan yang menawarkan transaksi atas talian dalam menguruskan tuntutan kesihatan atau faedah perubatan. Metodologi Penyelidikan Pembangunan Sistem digunakan dalam pembangunan sistem ini. Prototaip CMS dibangunkan dengan menggunakan *Microsoft SQL Server 2000* sebagai pangkalan data dan *Active Server Pages (ASP)* sebagai *middleware* serta *Internet Information Server (IIS) 5.0* sebagai *Web server*. Kebaikan-kebaikan teknologi ini dibincangkan dalam kajian ini. Gabungan beberapa teknologi menjadikan CMS mempunyai ciri yang lebih baik dan dijangka dapat mempertingkatkan sistem tuntutan pada masa kini.

## **ABSTRACT**

Claim Management System (CMS) is a comprehensive automated health claim management solution that automates the functions carried out by Universiti Utara Malaysia (UUM), panel clinics and panel hospitals. It carries the process from health claim processing / adjudication over the Internet to the financial and medical auditing of all activities in the organization. It is regarded as a technical breakthrough in the administration of health care that guarantees prompt investigation and accurate claims settlement over the Internet with no human intervention, while maintaining the highest levels of security. CMS manages the claims' records more consistently and effectively where the paper-based ways will be reduced or even eliminated. Furthermore, CMS introduces a new way in managing organization's activities in a Web-based applications environment, which is more productive and timesaving. In addition, CMS provides the UUM, panel clinics and panel hospitals abilities to work efficiently and effectively using the Web-based application.

The study was carried out in order to produce a Web-based application of Claim Management System (CMS). CMS is a Web-based application system that offers online transaction in managing health claims or medical benefit. The System Development Research Methodology is the methodology used in the study. The CMS prototype is built using the Microsoft SQL Server 2000 as relational database, together with Active Server Pages (ASP) as the middleware and Internet Information Server (IIS) 5.0 as the Web server. The benefits of these technologies are discussed in this study. The combination of these technologies makes the CMS featured with many benefits that are believed can enhance today's claim system.

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## **TABLE OF CONTENTS**

	<b>Page</b>
<b>PERMISSION TO USE</b>	i
<b>ABSTRAK</b>	ii
<b>ABSTRACT</b>	iii
<b>ACKNOWLEDGMENTS</b>	iv
<b>LIST OF TABLES</b>	ix
<b>LIST OF FIGURES</b>	x
<b>CHAPTER 1: INTRODUCTION</b>	
1.0 INTRODUCTION	1
1.1 THE WEB-BASED APPLICATIONS	2
1.2 PROBLEM STATEMENTS	3
1.3 OBJECTIVES	4
1.4 SIGNIFICANCE OF THE PROJECT	5
1.5 PROJECT SCOPE	6
1.5.1 Administration Masters	6
1.5.2 Help Desk System	6
1.5.3 Patient Verification	6
1.5.4 Claim Submission	7
1.5.5 Claim Processing	7
1.5.6 Claim Reimbursement	8
1.5.7 Report & Analysis	8

## **CHAPTER 2: LITERATURE REVIEW**

2.0	INTRODUCTION	9
2.1	THE WEB-BASED APPLICATIONS	11
2.1.1	Management	16
2.1.2	Education	20
2.1.3	Medical	23
2.1.4	Engineering	24
2.1.5	Finance	25
2.2	CONCLUSION	26

## **CHAPTER 3: SYSTEMS ANALYSIS AND DESIGN**

3.0	INTRODUCTION	27
3.1	METHODOLOGY	29
3.2	SYSTEM'S ARCHITECTURE DEVELOPMENT	30
3.3	ANALYZE AND DESIGN THE SYSTEM	33
3.3.1	Data Modeling	33
3.3.2	Process Modeling	33
3.4	TOOLS FOR CLAIM MANAGEMENT SYSTEM	36
3.4.1	Microsoft SQL Server 2000	36
3.4.2	Active Server Pages (ASP)	41
3.4.3	Internet Information Server (IIS) 5.0	43

## **CHAPTER 4: SYSTEMS DEVELOPMENT OF CMS**

4.0	INTRODUCTION	44
4.1	DATABASE DEVELOPMENT	45
4.1.1	Creating CMS Database Using the Create Database Wizard	45
4.1.2	Creating CMS Database Using Enterprise Manager	46
4.1.3	Creating CMS Database Using T-SQL Commands	47
4.2	CLAIM MANAGEMENT SYSTEM (CMS) TABLES CREATION	48
4.2.1	Creating a Table Using SQL Server Enterprise Manager	50
4.2.2	Creating a Table Using T-SQL Commands	51
4.3	USER INTERFACE DESIGN AND DEVELOPMENT	52
4.3.1	User Interface Design Principles	53
4.3.2	User Interaction	55
4.3.3	The Graphical User Interface of CMS	57

## **CHAPTER 5: IMPLEMENTATION AND TESTING**

5.0	INTRODUCTION	58
5.1	CLAIM MANAGEMENT SYSTEM ARCHITECTURE	59
5.1.1	Web Browser	61
5.1.2	Web Server	61
5.1.3	Database	61
5.2	PROTOTYPE OF CLAIM MANAGEMENT SYSTEM	63
5.2.1	Administrator	64
5.2.2	Panel Clinic and Panel Hospital	69
5.3	TESTING OF THE CLAIM MANAGEMENT SYSTEM	74
5.3.1	Verification Testing	75
5.3.2	Validation Testing	76
5.3.3	Audit Testing	77
5.4	CONCLUSION	77



<b>CHAPTER 6: CONCLUSION</b>	<b>78</b>
<b>REFERENCES</b>	<b>81</b>
<b>APPENDIX A: DATA FLOW DIAGRAMS (DFD)</b>	<b>86</b>
<b>APPENDIX B: USER MANUAL</b>	<b>90</b>

## LIST OF TABLES

	Page
<b>Table 4.1:</b> The Steps for Creating CMS Database	47
<b>Table 4.2:</b> Summary of the Characteristics of a Relational Table in CMS Database	49
<b>Table 4.3:</b> The Steps for Creating CMS Table	50
<b>Table 4.4:</b> The Characteristics of Graphical User Interfaces in CMS	52
<b>Table 4.5:</b> User Interface Development Principles in CMS	54
<b>Table 4.6:</b> Advantages and Disadvantages of Interaction Style	56
<b>Table 5.1:</b> Validation Testing	76

## **LIST OF FIGURES**

	<b>Page</b>
<b>Figure 1.1:</b> CMS Modules	7
<b>Figure 2.1:</b> Architecture of Web Applications	13
<b>Figure 2.2:</b> eClaim™	18
<b>Figure 2.3:</b> Engineering Activities Reporting System	25
<b>Figure 3.1:</b> System Development Research Methodology	30
<b>Figure 3.2:</b> Entity-Relationship Diagram (ERD)	31
<b>Figure 3.3:</b> Context Diagram	35
<b>Figure 3.4:</b> A Two-Tier Client/Server System	38
<b>Figure 3.5:</b> A Three-Tier Client/Server System	40
<b>Figure 4.1:</b> SQL Server Enterprise Manager Database Properties Dialog Box	46
<b>Figure 4.2:</b> T-SQL Commands For Creating Database	47
<b>Figure 4.3:</b> The New Table Window	50
<b>Figure 4.4:</b> T-SQL Commands for Creating a Table	51
<b>Figure 4.5:</b> The User Interface Design Process in CMS	53
<b>Figure 4.6:</b> Multiple User Interfaces in CMS	56
<b>Figure 4.7:</b> User Interface in CMS	57
<b>Figure 5.1:</b> Claim Management System Architecture	60
<b>Figure 5.2:</b> The Major Components of Microsoft SQL Server 2000	62
<b>Figure 5.3:</b> User Menu Interface	63
<b>Figure 5.4:</b> Main Menu Interface	64
<b>Figure 5.5:</b> Administration Module Interface	65
<b>Figure 5.6:</b> Helpdesk Module Interface	66
<b>Figure 5.7:</b> Claim Department Module Interface	67
<b>Figure 5.8:</b> Account Department Module Interface	68

<b>Figure 5.9:</b>	Panel Clinic and Panel Hospital Main Menu Interface	69
<b>Figure 6.0:</b>	Patient Verification Sub-Module Interface	70
<b>Figure 6.1:</b>	Claims Status Sub-Module Interface	71
<b>Figure 6.2:</b>	Authorization Code Tracking Sub-Module Interface	72
<b>Figure 6.3:</b>	Claims Submission Sub-Module Interface	73
<b>Figure 6.4:</b>	Claims Update Sub-Module Interface	74

# **CHAPTER 1**

## **INTRODUCTION**

### **1.0 INTRODUCTION**

In recent years, healthcare costs have escalated astronomically, causing both government agencies and healthcare providers to seek alternative means of providing quality health care at a reasonable cost. The healthcare industry is responding through consolidation, vertical integration, and re-engineering of the healthcare delivery processes, and the application of information technology, such as the Internet and the World Wide Web. Internet and Web technologies offer benefits in terms of both cost and quality.

Claim Management System (CMS) is a comprehensive automated health claim management solution that automates the functions carried out by a Third Party Administrator (TPA) and Health Maintenance Organizations (HMO). It carries the process from health claim processing / adjudication over the Internet to the financial and medical auditing of all activities in the organization (IdealSoft, 2001). It is regarded as a technical breakthrough in the administration of health care that guarantees prompt investigation and accurate claims settlement over the Internet with no human intervention, while maintaining the highest levels of security.

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